

WHAT IS CLAIMED IS:

1. A three-dimensional CAD system which allots identification IDs to respective component parts, references to already overlaid parts to overlay parts so to configure an original three-dimensional model, copies the original three-dimensional model, and concurrently performs addition of parts to the original three-dimensional model and addition of parts to the copied three-dimensional model, to integrate the original three-dimensional model and the copied three-dimensional model into the same three-dimensional model, wherein:

a flag is added to identification IDs of the parts to be added to the copied three-dimensional model after copying the original three-dimensional model; and

when the processing of adding the parts to the original three-dimensional model and the processing of adding the parts to the copied three-dimensional model are performed and there is a difference in the contents of the parts having the same identification ID, the identification ID is changed according to the flag so that the identification ID of the part added to the original three-dimensional model and the identification ID of the part added to the copied three-dimensional model become different, and the original three-dimensional model and the copied three-dimensional model are integrated into the same three-dimensional model.

2. A three-dimensional CAD system which allots identification IDs to respective component parts, references to already overlaid parts to overlay the part so to configure an original three-dimensional model, copies the original three-dimensional model, and concurrently performs addition and correction of parts to the original three-dimensional model and addition of parts to the copied three-dimensional model, to integrate the original three-dimensional model and the copied three-dimensional model into the same three-dimensional model, wherein:

a first flag is given to the identification ID of the part configuring the original three-dimensional model at a time when the original three-dimensional model is

copied;

a second flag is given to the identification ID of the part to be added to the copied three-dimensional model after the original three-dimensional model is copied; and

when the processing of adding and correcting the parts to the original three-dimensional model and the processing of adding the parts to the copied three-dimensional model are performed and there is a difference in the contents of the parts having the same identification ID, the part having the identification ID which is given the first flag is judged as a part corrected in the original three-dimensional model, the part having the identification ID which is given the second flag is judged as a part added to the copied three-dimensional model, the identification ID is changed so that the identification ID of the part added to the original three-dimensional model and the identification ID of the part added to the copied three-dimensional model become different, and the original three-dimensional model and the copied three-dimensional model are integrated into the same three-dimensional model.

3. A three-dimensional CAD system which allots identification IDs to respective component parts, references to already overlaid parts to overlay the part so to configure an original three-dimensional model, copies the original three-dimensional model, and concurrently performs addition and correction of parts to the original three-dimensional model by a first design department and addition and correction of parts to the three-dimensional model copied by a second design department, to integrate the original three-dimensional model of the first design department and the three-dimensional model copied by the second design department into the same three-dimensional model, wherein:

a first flag is given to the identification ID of the part configuring the original three-dimensional model at a time when the original three-dimensional model is copied for a first time;

a second flag is given to the identification ID of the part to be added to the copied three-dimensional model after the original three-dimensional model is copied for the first time;

a third flag is given to the identification ID of the part configuring the original three-dimensional model at a time when the original three-dimensional model is copied for a second time;

the identification ID of the part configuring the three-dimensional model copied for the first time and the identification ID of the part configuring the three-dimensional model copied for the second time are compared and the contents are compared for differences;

it is judged that a part is not added or corrected when the first and third flags are given but the second flag is not given and there is not a content difference;

it is judged that the part is corrected by the first design department when the first and third flags are given but the second flag is not given and there is a content difference;

it is judged that the part is added by the first design department when the third flag is given but the first and second flags are not given;

it is judged that the part is added by the second design department when the second flag is given but the first and third flags are not given;

when the second and third flags are given but the first flag is not given and there is a content difference, it is judged that the parts are added by the first and second design departments, and the identification ID is changed so that the identification ID of the part becomes different; and

the original three-dimensional model of the first design department and the three-dimensional model copied by the second design department are integrated into the same three-dimensional model.

4. The three-dimensional CAD system according to claim 1, 2 or 3, wherein:

the first part has a relationship to refer to the second part and, when only the first part of these parts is integrated;

data that the identification ID of the second part is unnecessary is stored, and the identification IDs of both of the parts are changed;

the identification ID of the second part is deleted according to the stored data; and

the reference relationship is changed so that the first part refers to another part.

EQUATIONS-ODES

add a² →